REMARKS

Claims 1-5 and 8-14 are pending. The Examiner rejected claims 1-5 and 8-14 under 35 U.S.C. § 102(a) as anticipated by Kong *et al.* (WO 01/61039A2) (hereinafter "Kong), and claims 1, 8, and 9 under 35 U.S.C. § 112, second paragraph as indefinite. Applicants have herein amended claims 1 and 12. Support for the amendments may be found throughout the specification, including at Example 6, page 14; no new matter has been added.

Applicants thank the Examiner for the courtesy of the telephonic interview on June 9, 2003. Applicants respectfully submit that the amendments and remarks included herein correspond to the substance of the telephonic interview. Accordingly, Applicants respectfully request reconsideration and allowance of claims 1-5 and 8-14.

Rejections under 35 U.S.C. § 112, second paragraph

The Examiner rejected claims 1, 8, and 9 under 35 U.S.C. § 112, second paragraph as indefinite. In particular, the Examiner stated that the term "greater" was not defined by the claim and the specification did not provide a standard to reasonably apprise one of skill in the art of the scope of the invention.

Applicants respectfully traverse the rejection with respect to the claim 1, as amended, and claims 8 and 9 which depend therefrom. Amended claim 1 recites a method for predicting patient responsiveness to a 5-HT3 receptor antagonist. The method includes determining a genotype of the promoter region of the patient's serotonin transporter protein gene, where the genotype can be a long variant/long variant, short variant/long variant, or short variant/short variant; and correlating the long variant/long variant genotype with a greater patient responsiveness to the 5-HT3 receptor antagonist as compared to the responsiveness to the 5-HT3 receptor antagonist of a patient having the short variant/long variant genotype or the short variant/short variant genotype.

Applicants respectfully assert that claims 1, 8, and 9 are sufficiently definite and distinctly claim the subject matter which Applicants regard as the invention. The standard for definiteness is whether the claim apprises one of ordinary skill in the art of its scope and serves

the notice function required by 35 U.S.C. § 112, second paragraph. "Determining whether a claim is indefinite requires an analysis of 'whether one skilled in the art would understand the bounds of the claim when read in light of the specification. . . . If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, [section] 112 demands no more.'" Credle v. Bond, 25 F.3d 1566 (Fed. Cir. 1994); see also MPEP § 2173.02

The present claims, when read in light of the specification, reasonably apprise those of skill in the art of the bounds of the claims. Claim 1 recites that the long/long genotype is correlated with a greater patient responsiveness to a 5-HT3 receptor antagonist as compared to the responsiveness of patients with a short /long or short/short genotype. Thus, the responsiveness to a 5-HT3 receptor antagonist of a patient exhibiting a long/long genotype is greater relative to the other two genotypes. Accordingly, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 112, second paragraph.

Rejections under 35 U.S.C. § 102(a)

The Examiner rejected claims 1-5 and 8-15 under 35 U.S.C. § 102(a) as being anticipated by Kong (WO 01/61039). With respect to claims 1-5 and 8-11, the Examiner stated that Kong teaches "correlating the long variant/long variant genotype with greater patient responsiveness." With respect to claims 12-13, the Examiner stated that Kong teaches a method for treating IBS including genotyping the patient and administering a 5-HT3 receptor antagonist to patients having a long variant/long variant genotype. Finally, with respect to claim 14, the Examiner stated that Kong teaches a method for identifying a patient population for inclusion in a 5-HT3 receptor antagonist clinical trial by genotyping the patient and identifying the potential participant as suitable based on his having the long variant/long variant genotype.

Applicants respectfully traverse the rejection with respect to the amended claims. As amended, claim 1 recites a method for predicting patient responsiveness to a 5-HT3 receptor antagonist. As discussed above, the method includes correlating a long variant/long variant genotype in the promoter region of the serotonin transporter protein gene with a greater patient responsiveness to a 5-HT3 receptor antagonist as compared to the responsiveness to the 5-HT3 receptor antagonist of a patient having the short variant/long variant genotype or the short

variant/short variant genotype. At no point does Kong disclose that a long variant/long variant genotype can be correlated with greater patient responsiveness to a 5-HT3 receptor antagonist as compared to the short variant/long variant genotype or the short variant/short variant genotype. In fact, the Kong reference specifically discloses that it is the deletion/deletion genotype[1] ("del/del") that demonstrates an "increased incidence in favorable therapeutic response" to alosetron treatment. Kong found that patients with the del/del genotype exhibited a higher incidence of relief of IBS symptoms and a lower frequency of constipation as an effect of treatment as compared to subjects with short variant/long variant ("del/ins") and long variant/long variant ("ins/ins") genotypes. See Kong, page 5, lines 27-31; page 6, lines 1-11; page 7, lines 25-35; page 8, lines 1-5; and page 21, lines 11-27. Thus, Kong does not anticipate claims 1-5 and 8-11.

With respect to claims 12 and 13, at no point does Kong disclose a method for treating a patient with diarrhea-predominant IBS that includes genotyping the promoter region of the patient's serotonin transporter protein gene and administering an effective amount of a 5-HT3 receptor antagonist after determining that the patient has a long variant/long variant genotype. Accordingly, Kong cannot anticipate claims 12 and 13. Finally, with respect to claim 14, Kong also does not disclose a method for identifying a patient population for inclusion in a 5-HT3 receptor antagonist clinical trial that includes obtaining a biological sample from a potential participant in the clinical trial, genotyping the promoter region of the biological sample's serotonin transporter protein gene, and identifying a potential participant as suitable for inclusion based on the presence of a long variant/long variant genotype. While Kong discloses that the genotypes of patients already enrolled in a clinical trial were determined, at no point does Kong disclose the identification of a patient population for inclusion in a clinical trial based on the presence of a long variant/long variant genotype. See Kong at page 6, lines 24-30. Thus, Kong does not anticipate claim 14.

In light of all of the above, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102(a).

[1] Note that the del/del genotype corresponds to the present short variant/short variant genotype.

Conclusion

Applicants respectfully submit that claims 1-5 and 8-14 are in condition for allowance, which action is requested. The Examiner is invited to telephone the above-referenced attorney if such will advance prosecution of this application.